

AMENDMENTS TO THE CLAIMS

Claims 1-8, 11-19, 22-30, 33 and 36-50 are pending in the instant application. Claims 1-33 and 36-50 have been amended. Claims 34 and 35 have been cancelled without prejudice. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (currently amended) A method for controlling an antenna system, the method comprising:

collecting information associated with ~~at least one of~~ a plurality of frames received by a portion of a plurality of antennas; and

selecting a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames;

determining a selection index value for each one of said portion of said plurality of antennas based on the number of instances that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames; and

selecting one or more candidate starting antennas by comparing each of said plurality of selection index values to a majority polling threshold value.

~~determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas using one or both of a majority polling scheme and a weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors.~~

2. (currently amended) The method according to claim 1, ~~wherein said portion of said plurality of antennas are receiving antennas and a remaining portion of said plurality of antennas are transmitting antennas~~ comprising increasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing.

3. (currently amended) The method according to claim ~~[[2]]~~1, comprising ~~selecting said at least one starting antenna from said receiving antennas~~ decreasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing.

4. (currently amended) The method according to claim ~~[[2]]~~1, comprising selecting ~~said at least one starting antenna from said transmitting~~ one or more candidate starting antennas.

5. (currently amended) The method according to claim ~~[[1]]~~4, comprising ~~collecting at least one of a plurality of selection metrics associated with said at least one of said plurality of frames received by said portion of said plurality of antennas~~ dwelling on said selected one starting antenna to detect a received signal.

6. (currently amended) The method according to claim 5, wherein ~~said at least one of said plurality of selection metrics comprises one or more of a power estimation, a signal-to-noise ratio, a packet error rate or bit error rate, a propagation channel characteristic, and a channel interference level~~ comprising determining an estimated power level for said received signal during said dwelling on said selected one starting antenna.

7. (currently amended) The method according to claim 5, comprising ~~selecting at least one of said at least one of said plurality of selection metrics to determine said at least one starting antenna~~ determining a gain level by performing automatic gain control during said dwelling on said selected one starting antenna.

8. (currently amended) The method according to claim ~~[[1]]~~5, comprising ~~selecting at least one of said at least one of said plurality of frames to determine said at least one starting antenna~~ dwelling on a subsequent antenna selected from among a remaining portion of said portion of said plurality of antennas when a time duration for

said dwelling on said subsequent antenna is insufficient to enable performing automatic gain control.

9. (currently amended) The method according to claim ~~[[1]]~~8, further comprising ~~determining said at least one starting antenna based on a majority polling scheme of at least a portion of said collected information~~ determining an estimated power level for signals received during said time duration based on a determined gain level.

10. (currently amended) The method according to claim ~~[[1]]~~9, further comprising ~~determining said at least one starting antenna based on a weighted sum scheme of at least a portion of said collected information~~ storing each said determined estimated power level that is measured at each selected one of said portion of said plurality of antennas.

11. (currently amended) The method according to claim 10, wherein ~~said weighted sum filtering scheme corresponds to the response of a first-order Infinite Impulse Response (IIR) filter or to the response of a Finite Impulse Response (FIR) filter~~ comprising selecting one of said portion of said plurality of antennas to receive a remaining portion of a current frame based on said stored plurality of determined estimated power levels.

12. (currently amended) A computer readable medium having stored thereon, a computer program having at least one code section for controlling an antenna system, the at least one code section being executable by a computer for causing the computer to perform steps comprising:

collecting information associated with ~~at least one of~~ plurality of frames received by a portion of a plurality of antennas; and

selecting a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames;

determining a selection index value for each one of said portion of said plurality of antennas based on the number of instances that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames; and

selecting one or more candidate starting antennas by comparing each of said plurality of selection index values to a majority polling threshold value.

~~determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas using one or both of a majority polling scheme and a weighted sum filtering scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors.~~

13. (currently amended) The computer readable medium according to claim 12, ~~wherein said portion of said plurality of antennas are receiving antennas and a remaining portion of said plurality of antennas are transmitting antennas~~ wherein said at least one code section comprises code for increasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing.

14. (currently amended) The computer readable medium according to claim ~~[[13]]~~12, wherein said at least one code section comprises code for selecting said at least one starting antenna from said receiving antennas decreasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing.

15. (currently amended) The computer readable medium according to claim ~~[[13]]~~12, wherein said at least one code section comprises code for selecting said at least one starting antenna from said transmitting one or more candidate starting antennas.

16. (currently amended) The computer readable medium according to claim ~~[[12]]~~15, wherein said at least one code section comprises code for collecting at least one of a plurality of selection metrics associated with said at least one of said plurality

~~of frames received by said portion of said plurality of antennas~~ dwelling on said selected one starting antenna to detect a received signal.

17. (currently amended) The computer readable medium according to claim 16, ~~wherein said at least one of said plurality of selection metrics comprises one or more of a power estimation, a signal to noise ratio, a packet error rate or bit error rate, a propagation channel characteristic, and a channel interference level~~ wherein said at least one code section comprises code for determining an estimated power level for said received signal during said dwelling on said selected one starting antenna.

18. (currently amended) The computer readable medium according to claim 16, wherein said at least one code section comprises code for selecting at least one of said at least one of said plurality of selection metrics to determine said at least one starting antenna determining a gain level by performing automatic gain control during said dwelling on said selected one starting antenna.

19. (currently amended) The computer readable medium according to claim ~~[[12]]~~16, wherein said at least one code section comprises code for selecting at least one of said at least one of said plurality of frames to determine said at least one starting antenna dwelling on a subsequent antenna selected from among a remaining portion of said portion of said plurality of antennas when a time duration for said dwelling on said subsequent antenna is insufficient to enable performing automatic gain control.

20. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim ~~[[12]]~~19, further wherein said at least one code section comprises code for determining said at least one starting antenna based on a majority polling scheme of at least a portion of said collected information determining an estimated power level for signals received during said time duration based on a determined gain level.

21. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim ~~[[1]]20~~, further wherein said at least one code section comprises code for determining said at least one starting antenna based on a weighted sum scheme of at least a portion of said collected information storing each said determined estimated power level that is measured at each selected one of said portion of said plurality of antennas.

22. (currently amended) The computer readable medium according to claim ~~[[1]]21~~, ~~wherein said weighted sum filtering scheme corresponds to the response of a first order Infinite Impulse Response (IIR) filter or to the response of a Finite Impulse Response (FIR) filter~~ wherein said at least one code section comprises code for selecting one of said portion of said plurality of antennas to receive a remaining portion of a current frame based on said stored plurality of determined estimated power levels.

23. (currently amended) A system for controlling an antenna system, the system comprising:

at least one processor that enables collection~~[[s]]~~ of information associated with at least one of a plurality of frames received by a portion of a plurality of antennas; and

said at least one processor enables selection of a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames;

said at least one processor enables determination of a selection index value for each one of said portion of said plurality of antennas based on the number of instances that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames; and

said at least one processor enables selection of one or more candidate starting antennas by comparing each of said plurality of selection index values to a majority polling threshold value.

~~said processor determines at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas using one or both of a majority polling scheme and a weighted sum filtering~~

~~scheme, wherein said weighted sum filtering scheme utilizes a plurality of different weighting factors.~~

24. (currently amended) The system according to claim 23, ~~wherein said portion of said plurality of antennas are receiving antennas and a remaining portion of said plurality of antennas are transmitting antennas~~ wherein said at least one processor enables increasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing.

25. (currently amended) The system according to claim ~~[[24]]~~23, wherein said ~~at least one processor selects said at least one starting antenna from said receiving antennas~~ enables decreasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing.

26. (currently amended) The system according to claim ~~[[24]]~~23, wherein said ~~at least one processor enables selection~~[[s]] of said at least one starting antenna from said transmitting one or more candidate starting antennas.

27. (currently amended) The system according to claim ~~[[23]]~~26, wherein said ~~at least one processor collects at least one of a plurality of selection metrics associated with said at least one of said plurality of frames received by said portion of said plurality of antennas~~ enables dwelling on said selected one starting antenna to detect a received signal.

28. (currently amended) The system according to claim 27, wherein ~~said at least one of said plurality of selection metrics comprises one or more of a power estimation, a signal-to-noise ratio, a packet error rate or bit error rate, a propagation channel characteristic, and a channel interference level~~ wherein said at least one processor enables determination of an estimated power level for said received signal during said dwelling on said selected one starting antenna.

29. (currently amended) The system according to claim 27, wherein said at least one processor selects at least one of said at least one of said plurality of selection metrics to determine said at least one starting antenna enables determination of a gain level by performing automatic gain control during said dwelling on said selected one starting antenna.

30. (currently amended) The system according to claim ~~[[23]]~~27, wherein said at least one processor selects at least one of said at least one of said plurality of frames to determine said at least one starting antenna enables dwelling on a subsequent antenna selected from among a remaining portion of said portion of said plurality of antennas when a time duration for said dwelling on said subsequent antenna is insufficient to enable performing automatic gain control.

31. (currently amended) The system according to claim ~~[[2]]~~30, wherein said at least one processor determines said at least one starting antenna based on a majority polling scheme of at least a portion of said collected information enables determination of an estimated power level for signals received during said time duration based on a determined gain level.

32. (currently amended) The system according to claim ~~[[2]]~~31, wherein said at least one processor determines said at least one starting antenna based on a weighted sum scheme of at least a portion of said collected information enables storing of each said determined estimated power level that is measured at each selected one of said portion of said plurality of antennas.

33. (currently amended) The system according to claim ~~[[2]]~~32, wherein said weighted sum filtering scheme corresponds to the response of a first-order Infinite Impulse Response (IIR) filter or to the response of a Finite Impulse Response (FIR) filter wherein said at least one processor enables selection of one of said portion of said

plurality of antennas to receive a remaining portion of a current frame based on said stored plurality of determined estimated power levels.

34. (cancelled)

35. (cancelled)

36. (currently amended) A method for controlling an antenna system, the method comprising:

collecting information associated with ~~at least one of~~ a plurality of frames received by a portion of a plurality of antennas; and

computing a weighted average value over a determined number of said received plurality of frames for each of said portion of said plurality of antennas based on said collected information; and

selecting one or more candidate starting antennas from said portion of said plurality of antennas based on said plurality of computed weighted average values.

~~determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas using a majority polling scheme.~~

37. (currently amended) The method according to claim 36, ~~comprising selecting said determined at least one starting antenna based on the number of times said determined at least one starting antenna has been previously selected over a predetermined number of said received plurality of frames when utilizing said majority polling scheme~~ wherein said weighted average value is a weighted average of received signal power values.

38. (currently amended) The method according to claim ~~[[1]]~~36, comprising ~~generating said plurality of different weighting factors based on one or both of a selected filtering format and a determined number of said plurality of frames received~~

~~by said portion of said plurality of antennas~~ computing said weighted average value based on a plurality of distinct weighting factors.

39. (currently amended) The method according to claim ~~[[1]]36~~, wherein ~~said collected information is collected received signal power information~~ comprising computing said weighted average value based on a selected filter format.

40. (currently amended) The method according to claim 39, ~~comprising filtering said collected received signal power information based on said plurality of different weighting factors when utilizing said weighted sum filtering scheme~~ wherein said selected filter format is a finite impulse response filter and/or an infinite impulse response filter.

41. (currently amended) A computer readable medium having stored thereon, a computer program having at least one code section for controlling an antenna system, the at least one code section being executable by a computer for causing the computer to perform steps comprising:

collecting information associated with ~~at least one of~~ a plurality of frames received by a portion of a plurality of antennas; and

computing a weighted average value over a determined number of said received plurality of frames for each of said portion of said plurality of antennas based on said collected information; and

selecting one or more candidate starting antennas from said portion of said plurality of antennas based on said plurality of computed weighted average values.

~~determining at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas using a majority polling scheme..~~

42. (currently amended) The computer readable medium according to claim 41, ~~comprising code for selecting said determined at least one starting antenna based~~

~~on the number of times said determined at least one starting antenna has been previously selected over a predetermined number of said received plurality of frames when utilizing said majority polling scheme~~ wherein said weighted average value is a weighted average of received signal power values.

43. (currently amended) The computer readable medium according to claim ~~[[12]]41~~, comprising code for ~~generating said plurality of different weighting factors based on one or both of a selected filtering format and a determined number of said plurality of frames received by said portion of said plurality of antennas~~ computing said weighted average value based on a plurality of distinct weighting factors.

44. (currently amended) The computer readable medium according to claim ~~[[12]]41~~, ~~wherein said collected information is collected received signal power information~~ comprising code for computing said weighted average value based on a selected filter format.

45. (currently amended) The computer readable medium according to claim 44, ~~comprising code for filtering said collected received signal power information based on said plurality of different weighting factors when utilizing said weighted sum filtering scheme~~ wherein said selected filter format is a finite impulse response filter and/or an infinite impulse response filter.

46. (currently amended) A system for controlling an antenna system, the system comprising:

at least one processor that enables collection~~[[s]]~~ of information associated with
~~at least one of a plurality of frames received by a portion of a plurality of antennas; and~~
said at least one processor enables computation of a weighted average value
over a determined number of said received plurality of frames for each of said portion of
said plurality of antennas based on said collected information; and

said at least one processor enables selection of one or more candidate starting antennas from said portion of said plurality of antennas based on said plurality of computed weighted average values.

~~said processor determines at least one starting antenna from said plurality of antennas based on said collected information received by said portion of said plurality of antennas using a majority polling scheme.~~

47. (currently amended) The system according to claim 46, wherein said weighted average value is a weighted average of received signal power values ~~said processor selects said determined at least one starting antenna based on the number of times said determined at least one starting antenna has been previously selected over a predetermined number of said received plurality of frames when utilizing said majority polling scheme.~~

48. (currently amended) The system according to claim ~~[[23]]~~46, wherein said at least one processor generates said plurality of different weighting factors based on one or both of a selected filtering format and a determined number of said plurality of frames received by said portion of said plurality of antennas enables computation of said weighted average value based on a plurality of distinct weighting factors.

49. (currently amended) The system according to claim ~~[[23]]~~46, wherein said at least one processor enables collected information is collected received signal power information computation of said weighted average value based on a selected filter format.

50. (currently amended) The system according to claim 49, ~~wherein said processor filters said collected received signal power information based on said plurality of different weighting factors when utilizing said weighted sum filtering scheme~~ wherein said selected filter format is a finite impulse response filter and/or an infinite impulse response filter.